

## **METHOD OF FORMING AN EMBEDDED READ ELEMENT**

### **ABSTRACT**

A method of forming an embedded read element is used in the fabrication process of a magnetic head assembly including write and read heads. In this method, three photolithographic patterning steps are applied for defining the designed height of the embedded read element, defining its designed width, and connecting it with conducting layers, respectively. An in-line lapping guide is also formed with a spacing in front of the embedded read element. In this method, two mechanical lapping steps are applied, one monitored by measuring the resistance of a parallel circuit of the embedded read element and the in-line lapping guide, and the other monitored by measuring the GMR response of the embedded read element.